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Improving the Abilities of Science Learning Outcomes About Heat Transfer in Class V Students of SD IT Uswatun Hasanah Through the Singing Method

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ABSTRACT

This research aims to describe efforts to improve students' ability to understand heat transfer in fifth grade science lessons at SD IT Uswatun Hasanah, Banjar City. To achieve this goal, Classroom Action Research will be carried out on 21 students using the singing method. There are 2 cycles in this research. Each cycle goes through four stages, consisting of (1) planning, (2) implementing learning improvements, (3) data collection, and (4) reflection. Data were collected using a learning outcomes test in the form of a questionnaire with a total of 10 questions. Based on the research stages, the results showed that in cycle 1 only 43% had completed the KKM score of 75. And this increased to 100% in cycle 2. Therefore, the use of the singing method had a positive impact in improving student learning outcomes in the heat transfer science subject. The material presented becomes easier for students to accept and students feel happy so that students are actively involved and also motivated in class so that learning objectives are achieved well.

Key Word *Students' Abilities, Understanding Heat Transfer, Singing*

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INTRODUCTION

As a teacher, of course you want your students to get maximum learning results that are in accordance with the learning objectives. Because learning outcomes are changes in attitudes resulting from the process of learning activities (Sumilat, 2018). Gagne, 2007:14. B.S Bloom, et al in Sapriati Amalia, 2021:7.4 said that there are three domains of educational goals (Bloom's Taxonomy), namely: the cognitive domain (thinking process), the affective domain (life attitudes), and the psychomotor domain (physical skills). Teachers must be able to improve students' skills and develop effective, creative and

innovative teaching and learning activities to achieve the expected goals. Therefore, as stated by Tyler in Sapriati Amalia, 2021:7.6 learning results or assessments provide information about the quality of the learning process and the quality of the goals to be achieved.

Natural science education is a lesson that is not just rote learning, but rather explores experiences and practical activities in the field according to Ika W. & Tias, 2017; Sugiarta et al., 2016. Science education focuses more on activities carried out directly such as experiments or experiments so that students can explore and understand the natural surroundings scientifically (Diartha et al., 2019). Science subjects in elementary school are subjects that place more emphasis on trials or experiments that can be carried out both indoors and outdoors. Science teaches students to interact with nature and the surrounding environment. Teachers also need to understand the characteristics of students and be able to inspire and motivate them to actively participate in the science learning process in elementary school.

The results of daily tests show that there are several students who still do not understand the material. The obstacle is that science material is becoming more and more dense, making it difficult for students to understand the material, especially heat transfer material. This is influenced by factors from the teacher and the students themselves. When teaching and learning activities take place, the teacher only provides material using the lecture method. Therefore, teachers must be able to create learning that can build student motivation so that lively and active learning occurs, with the hope that the results of science learning are in accordance with the goals to be achieved. The student's own factor is the low level of student learning motivation in science learning due to the large amount of material. Therefore, teachers must also be able to motivate students to be enthusiastic and willing to learn science in a fun way.

Trianto (2011) believes that learning methods are part of a learning strategy which has the function of: presenting, displaying, exemplifying, and providing students with exercises to achieve goals. Not every teaching method is suitable or appropriate and can be used for all learning. From this understanding it can be concluded that learning methods are very important and must be present in the learning process. When choosing a learning method, teachers must be careful and thorough to ensure that the learning method chosen is appropriate to the material to be taught and the learning objectives to be achieved.

In this study, researchers used the singing method. Yusriana, 2012 said that the activity of playing notes that can produce music with sound is called singing. Children really like singing. Singing is a very popular activity for them.

Almost every child likes to listen to and sing songs with his friends followed by simple dances. The singing method is a learning method that uses singing as a vehicle for children's learning (Muliawan, 2009). This statement states that the singing method can be applied in elementary schools because almost all children like singing. When children sing, they feel like they are playing so they don't feel burdened by the memorization given. Apart from that, when singing students can express themselves according to the tone of the song. It is hoped that this singing method can build motivation and improve student learning outcomes. Purwanto quoted from Syamsuri Jari in Akbar Eliyyil, 2020, saying that the benefits of singing are as follows: (1) A place of relaxation to neutralize heart and brain beats. (2) Increase students' interest in learning (3) Encourage fun learning activities. (4) Improves memory and can touch students' emotional and aesthetic domains (5) Learning materials that contain the process of internalization of values (6) Increase students' motivation to learn. Meanwhile, according to Musbikin (Prasetya, 2010) singing has the following benefits: (a) Creating a lively and enjoyable classroom atmosphere can increase students' enthusiasm for learning. (b) Character education can support teachers' efforts to develop friendly and communicative character values. (c) The teacher can control the learning situation. (d) Song lyrics can be used repeatedly with the same material even in different classes. However, the weaknesses are: (a) For children who are quiet and don't like singing, this is less effective. (b) Can disturb other classes because it is crowded. Therefore, before using the singing method in learning activities, it would be better to choose songs that are easy to memorize and suit the learning material.

RESEARCH METHOD

The research method used is PTK. Classroom Action Research is a form of self-reflection carried out by educators in their environment to improve logical and fair understanding of: educational practices, understanding of practices, situations of practical implementation as said by Kunandar, 2016:46. Classroom Action Research is research on the implementation of learning improvements as self-reflection carried out in the classroom by a teacher. The stages in classroom action research activities according to Suharsimi Arikunto, et al (2017: 42) state that this research is collaborative, uses descriptive methods, and takes the form of classroom action research (PTK). Direct observation technique is the technique used, and observation sheets are a data collection tool. After the data is collected, it is then calculated and analyzed using average calculations.

This research uses two cycles and four stages in each cycle. The stages are the planning stage, implementation stage, observation stage, and reflection

stage (Suharsimi Arikunto, 2006). The subjects in this research were science teachers and fifth grade students at SD IT Uswatun Hasanah, Banjar City, totaling 21 students, 9 women and 12 men. Supervisors carry out KBM observations. The supervisor follows and records the KBM process on the observation sheet. After the teaching and learning process is complete, the teacher and supervisor discuss the results of the observation. Reflection determines KBM from start to finish. Teachers and Supervisors analyze the process, results, advantages and disadvantages of KBM, and discuss whether there is a need for a next cycle. The data collected is in the form of learning outcomes, learning activities, and the feasibility of implementing KBM according to the learning model. The KBM results will be assessed using test tools in the form of heat transfer, KBM activities, and the feasibility of implementing KBM using observation tools and teacher observation sheets (APKG).

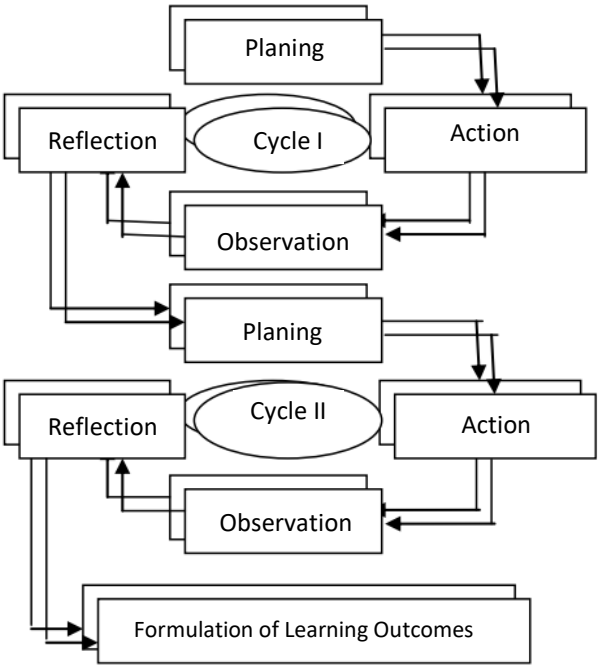

Figure 1.
PTK cycle (Inayati & Kristin, 2018)

RESULTS AND DISCUSSION

This research was carried out in class V at SD IT Uswatun Hasanah. The research used 2 cycles in Natural Science (IPA) lessons regarding Heat Transfer. The time used for each meeting is 35 minutes. Based on the results of research conducted from the first to the second learning cycle, it shows that there have been changes in both students, their learning outcomes and the professionalism of their teachers.

Cycle 1

At the planning stage, things prepared by researchers include: lesson plans, learning tools and resources, learning media and learning results tests or evaluation sheets. The learning media is in the form of pictures of examples of heat transfer and mastering the material well. At the beginning of the lesson, learning went smoothly, students were enthusiastic about seeing the learning media and actively asked questions regarding the images provided. However, there were some students who answered carelessly and the answers were not appropriate. This shows that there has been positive progress from students in the learning process, namely taking an active role in viewing and answering questions from pictures, however, there are still some people who answer carelessly. The method used in cycle 1 is the lecture and question and answer method.

At the end of the lesson, evaluation forms are distributed to students to measure their level of learning completion. The results obtained in cycle 1 are shown in figure 2 that student learning outcomes are less successful. This is because the classical completion level is 43% of students whose results reach the KKM. This shows that there needs to be improvements in the implementation of learning, especially when applying learning methods.

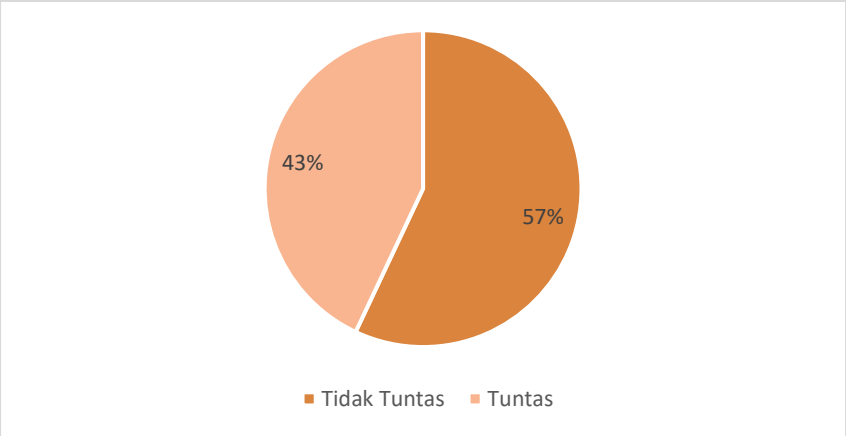

Figure 2.
Cycle 1 Learning Completeness Leve

Reflecting on cycle 1, researchers need to improve learning so that there is no noise and random or inappropriate answers from students. Researchers need to prepare appropriate learning methods for heat transfer material so that the class is more conducive.

Cycle 2

Based on the results of reflection 1 and discussions with supervisors, improvements need to be made by using appropriate learning methods in cycle

2. The singing method is the method chosen by researchers to improve learning in cycle 2. This learning method was chosen so that students do not answer carelessly when asked questions. by the teacher as happened in cycle 1.

At the implementation stage in cycle 2, based on the results of observations the KBM process ran without obstacles. The teacher uses the singing method to convey heat transfer material. In the activity using the singing method, in the initial stage the teacher first writes down the lyrics of a song that has been written about heat transfer material, then in the next stage, the teacher sings the lyrics of the song and the students listen to it and then sing it back together. While singing the song, the class ran in a conducive manner and the students were very happy because they could play while learning, even though the impact was that the class became noisy because the students memorized the songs given by the teacher.

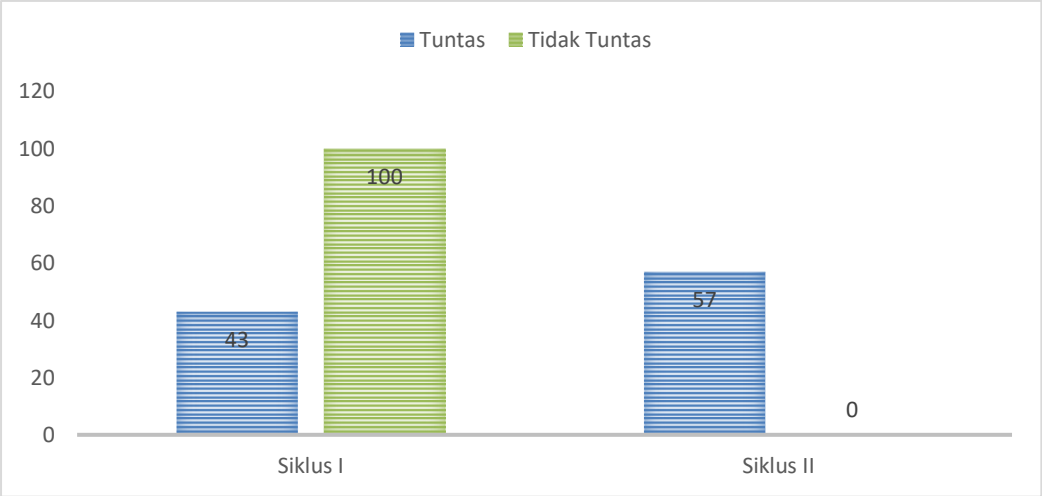

Figure 3.
Percentage of Classical Completion Each Cycle

In the implementation of cycle 2, there was one student who was shy when asked to sing a song, this was because he could not follow the tune, so the song lyrics were slightly different from those exemplified. At the end of the lesson, a test is given, in the form of an evaluation sheet which must be filled in and results are obtained as in Figure 2. Figure 2 shows that there is an increase in completeness to 100% in cycle 2. Meanwhile, 43% have not reached the KKM in cycle 1 because the teacher uses the lecture method. classically, making it difficult for students to understand a lot of science material. However, after the teacher used the singing method in delivering material about heat transfer, students were more focused and enthusiastic when receiving the lesson. This is because with the singing method students can play while playing or together with their friends while memorizing songs so that students feel happy and not

burdened. This shows a satisfactory increase in the percentage of completion to 100% completion.

So the conclusion is that the singing method is a method that is suitable to be applied in class V heat transfer science learning at Uswatun Hasanah IT Elementary School based on the results of research that has been carried out. And supported by the results of previous research by Juliani (2023), the singing method can increase students' learning motivation in the 5th grade science subject Theme 6 about heat and its transfer.

According to Ratnawati Eny (2022), singing strategies can improve student learning outcomes in temperature conversion material at junior high school level. Based on the research results of Setyowati and Watini (2022), the singing method can foster self-confidence and courage in carrying out activities and increase students' concentration levels.

With the singing method, students feel like they have fun because the presentation or discussion of the material is done by providing lyrics that are fun and easy for students to remember. As Aziz (2017) said, one method that is popular with children is the singing method. With the singing method, students are invited to be more active and livelier because the interaction is direct and fun. The singing method is suitable to be applied in teaching Heat Transfer Science in Elementary Schools.

CONCLUSION

After carrying out the research, it can be concluded that the use of the singing method in class V of SD IT Uswatun Hasanah in the heat transfer science subject has been proven to provide improvement and improve students' final results. This can be proven in cycle 1 that only 9 students or 43% had complete learning outcomes, then this increased in cycle 2 to 21 students or 100%. This is because the teacher masters every step of the singing method well and precisely. Apart from that, students are also motivated and happy so they can receive the material more meaningfully and without coercion because they learn while singing. Therefore, in the future teachers are advised to use varied and creative learning methods. Suggestions for this research include that the choice of learning method can determine the success of learning, so that the singing method can be said to be successful, it requires repeated and consistent practice, teachers need to know, master and apply different learning models so that learning activities are not monotonous.

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